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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/668,297	09/25/2000	Ken Mashitani	P107336-00008	1933
7590 10/27/2003 Arent Fox Kintner Plotkin & Kahn PLLC Suite 600 1050 Connecticut Avenue NW Washington, DC 20036-5339			EXAMINER CHANG, AUDREY Y	
			ART UNIT 2872	PAPER NUMBER

DATE MAILED: 10/27/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/668,297

Applicant(s)

MASHITANI ET AL.

Examiner

Audrey Y. Chang

Art Unit

2872

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 August 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 8-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 8-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Remark

- This Office Action is in response to applicant's amendment filed on August 5, 2003, which has been entered as paper number 17.
- By this amendment, the applicant has amended claims 1 and 8.
- Claims 1-6 and 8-13 remain pending in this application.
- The rejection of claim 13 under 35 USC 112, first paragraph, set forth in the previous Office Action dated April 30, 2003 is withdrawn in response to applicant's amendment.
- The objection to claims 1-6 and 7-13 set forth in the previous Office Action dated April 30, is withdrawn in response to applicant's amendment.

Response to Amendment

1. The amendment filed on August 5, 2003 is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: **claim 1 has been amended** to include the feature "each area including a plurality of continuous shading parts", **claim 8 has been amended** to have the width of the aperture maintained at uniform width and **claim 13 has been amended** to include the feature "the optional area replacing the continuous shading part with a liquid crystal shutter". The specification only gives support for **some** of the areas with a *plurality of* shading parts but not all of the areas as recited in claim 1. The specification fails to teach that the widths of the aperture are maintained at uniform, (please see Figures 30-31 and 35-36). The specification also fails to teach the "replacement" of shading part with liquid crystal shutter, in particular the specification fails to teach HOW such replacement is done.

Applicant is required to cancel the new matter in the reply to this Office Action.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. **Claims 1-6, and 10-13 are rejected under 35 U.S.C. 112, first paragraph**, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The reasons for rejection based on the newly added matters are set forth in the paragraph above.

4. **Claim 13 is rejected under 35 U.S.C. 112, first paragraph**, as failing to comply with the **enablement** requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The specification fails to teach *how* could the shading part be “*replaced*” with liquid crystal shutter. If the shading part was there the first place, what mechanism is used to replace it with a liquid crystal shutter?

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Art Unit: 2872

6. **Claims 1-6, and 8-13 are rejected under 35 U.S.C. 102(e) as being anticipated by the patent issued to Hamagishi et al (PN. 6,049,424).**

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

The reasons for rejection are set forth in the previous Office Action dated April 30, 2003.

Claim 1 has been amended to include the feature that the shading means comprising a plurality of continuous shading parts and each divided area includes a plurality of continuous shading parts.

Hamagishi teaches that the barrier (10) comprises *a plurality of barriers* (12) serve as the plurality of shading parts. Hamagishi further teaches that the plurality of barriers or shading parts (12) and the liquid crystal shutters are arranged in *horizontal direction* and they can be grouped into areas that includes a plurality of barriers or shading parts.

Claim 8 has been amended to include the feature that the widths of the apertures are maintained at uniform and are defined by the boundaries of the shading part, such is taught by Hamagishi as shown in Figure 5 with liquid crystal shutters be switched to ON state or transparent state.

Claim 13 has been amended to include the feature that shading part is replaced by liquid crystal shutter so as to display a two dimensional image. Hamagishi teaches that two dimensional image may be displayed which implicitly means that some of the shading parts have been designed to be replaced by the liquid crystal shutter to destroy the stereoscopic directivity requirement.

Art Unit: 2872

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. **Claims 1, 3, 5, 6, 8, 9, and 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over the patent issued to Isono et al in view of the patent issued to Chikazawa.**

The reasons for rejection are set forth in the previous Office Action dated April 30, 2003.

Claim 1 has been amended to include the feature that the shading means comprising a plurality of continuous shading parts and each divided area includes a plurality of continuous shading parts. Both Isono et al and Chikazawa teach that the liquid crystal barrier panel or the liquid crystal device has *a plurality of continuous shading parts*, namely by keeping the plurality of *opaque regions* of the panel or device to be at OFF state always, (please see Figures 6A to 6F of the Isono et al and elements 39 of Figure 13 of Chikazawa as the plurality of the shading parts). Both Isono et al and Chikazawa further teaches that the plurality of barriers or shading parts and the liquid crystal shutter elements are arranged in horizontal direction and they can be grouped into areas that includes a plurality of barriers or shading parts.

Claim 8 has been amended to include the feature that the widths of the apertures are maintained at uniform and are defined by the boundaries of the shading part, such is taught by Isono et al as shown in Figures 6A and 6B).

Claim 13 has been amended to include the feature that shading part is replaced by liquid crystal shutter so as to display a two dimensional image. Isono et al teaches that two-dimensional image may be displayed by control the switching of the liquid crystal panel of the barrier. Although it does not teach explicitly that the displaying of two-dimensional image is done by replacing the shading part with liquid

Art Unit: 2872

crystal shutter however since they both achieve the same function namely displaying two-dimensional image such modification would have been considered to be obvious matter of design choice to one skilled in the art.

9. Claims 2, 4, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over the patents issued to Isono et al and Chikazawa as applied to claim 1 above, and further in view of the patent issued to Taniguchi et al.

The reasons for rejection are set forth in the previous Office Action dated April 30, 2003 and paragraphs above.

Response to Arguments

10. Applicant's arguments filed August 5, 2003 have been fully considered but they are not persuasive. The newly amended claims have been fully considered and they are rejected for the reasons stated above.

11. In response to applicant's arguments which state that the cited Hamagishi only teaches shifting the liquid crystal shutters in *consistent* manner across the shading device and it differs from the instant application having the shading means be divided into areas in horizontal direction and controlling shifting the liquid crystal shutters in each area, the examiner respectfully disagrees for the reasons stated below. **Firstly**, it is not clear what does it mean by "consistently"? Consistent with respect to what? Does it mean the shutters are not shifted "consistently" in the instant application? If such is the case chances are no autostereoscopic display will be provided since the shifting needed to be *synchronized* (some sort of consistency) with the display of the images on the display. Secondly, Hamagishi teaches that the plurality of barriers or shading parts (12) and the liquid crystal shutters are arranged in horizontal direction and they can be grouped into areas that includes a plurality of barriers or shading parts.

Art Unit: 2872

12. Applicant's arguments concerning the combination of the cited Isono and Chikazawa references with respect to the newly amended features are fully addressed in the paragraphs above.

Conclusion

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Audrey Y. Chang whose telephone number is 703-305-6208. The examiner can normally be reached on Monday-Friday (8:00-4:30), alternative Mondays off. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew Dunn can be reached on 703-305-0024. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

Audrey Y. Chang
Primary Examiner
Art Unit 2872

A. Chang, Ph.D.